

HDCVI DVR User Manual

HDCVI Series

2015.4

Welcome

Thank you for purchasing our HDCVI DVR!

This user's manual is designed to be a reference tool for the installation and operation of your system.

Here you can find some essential information about this series DVR features and functions, and for more details please refer to the CD in the package.

Before installation and operation please read the following safeguards and warnings carefully!

Important Safeguards and Warnings

1 . Electrical safety

All installation and operation here should conform to your local electrical safety codes.

The product must be grounded to reduce the risk of electric shock.

We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.

2 . Transportation security

Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

3 . Installation

Keep upwards. Handle with care.

Do not apply power to the DVR before completing installation.

Do not place objects on the DVR.

4 . Qualified engineers needed

All the examination and repair work should be done by the qualified service engineers.

We are not liable for any problems caused by unauthorized modifications or attempted repair.

5 . Environment

The DVR should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.

This series product shall be transported, storage and used in the specified environments.

6. Accessories

Be sure to use all the accessories recommended by manufacturer.

Before installation, please open the package and check all the components are included.

Contact your local retailer ASAP if something is broken in your package.

7. Lithium battery

Improper battery use may result in fire, explosion, or personal injury!

When replace the battery, please make sure you are using the same model!

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1. Overview and Features

This series device adopts embedded design to achieve high security and reliability. It can realize HD monitoring without changing current cable layout. It can work in the local end, and at the same time, when connecting it to the professional surveillance software, it can connect to security network to realize strong network and remote monitoring function.

This series product can be widely used in various areas such as banking, telecommunication, electric power, interrogation, transportation, intelligent resident zone, factory, warehouse, resources, and water conservancy.

1.1 Features:

- **Real-time monitoring**

It has analog output port, VGA port and HDMI port. You can use monitor or displayer to realize surveillance function. System supports VGA/HDMI output at the same time.

- **Storage function**

Special data format to guarantee data security and can avoid vicious data modification.

- **Compression format**

Support multiple-channel audio and video. An independent hardware decodes the audio and video

signal from each channel to maintain video and audio synchronization.

- **Backup function**

Support backup operation via USB port (such as flash disk, portable HDD, burner).

Client-end user can download the file to local HDD to backup via network.

- **Record playback function**

Support each channel real-time record independently, and at the same time it can support time line search, forward play, network monitor, record search, download and etc.

Support various playback modes: slow play, fast play, backward play and frame by frame play.

Support specified zone enlargement.

- **Network operation**

Support network remote real-time monitor, remote record search and remote PTZ control.

- **Alarm activation function**

Several relay alarm outputs to realize alarm activation and on-site light control. The alarm input port and output has the protection circuit to guarantee device safety.

- **PTZ control**

Support PTZ decoder via RS485.

Support various decode protocols to allow the PTZ to control the speed dome.

- **UPnP and DDNS**

It is to establish the mapping relationship between the LAN and the WAN via the UPnP protocol. Also DDNS is available to user for free.

- **Mobile APP**

Support Android and IOS smart mobile APP to remote access.

- **Hybrid video input**

It can connect not only the BNC HDCVI input but also IP camera bitrates input.

Slight function differences may be found due to different series.

2. HDD installation

This series DVR has only one SATA HDD. Please use HDD of 7200rpm or higher.

You can refer to the User's Manual for recommended HDD brand.

Please follow the instructions below to install hard disk.



1. Loosen the screws of the upper cover and side panel.



2. Fix four screws in the HDD (Turn just three rounds).



3. Place the HDD in accordance with the four holes in the bottom.



4. Turn the device upside down and then turn the screws in firmly in the chassis.



5. Fix the HDD firmly.



6. Connect the HDD cable and power cable.







7. Put the cover in accordance with the clip and then place the upper cover back.



8. Secure the screws in the rear panel and the side panel.

3. Front panel



Name	Icon	Function
Power button		Power button, press this button for three seconds to boot up or shut down DVR.
Up Down		Activate current control, modify setup, and then move up and down.
		Increase/decrease numeral.
		Assistant function such as PTZ menu.
Left Right		Shift current activated control
		When playback, click these buttons to control playback bar..
ESC	ESC	Go to previous menu, or cancel current operation.
		When playback, click it to restore real-time monitor mode.
Enter	ENTER	Confirm current operation
		Go to default button
		Go to menu
Assistant	Fn	Single window mode, click this button to display assistant function: PTZ control and image color.
		Backspace function: in numeral control or text control, press it for 1.5 seconds to delete the previous character before cursor.
		In motion detection setup, working with Fn and direction keys to realize setup.
		In text mode, click it to switch between numeral, English character(small/capitalized) and etc.
USB port		To connect USB storage device, USB mouse.
Network LED	Net	Light up when Network error occurs or there is no network connection

HDD LED	HDD	HDD error occurs or HDD capacity is below specified threshold value, the light becomes red to alert you.
Alarm LED	Alarm	Light up when an alarm event detected

4. Real panel

4-channel series

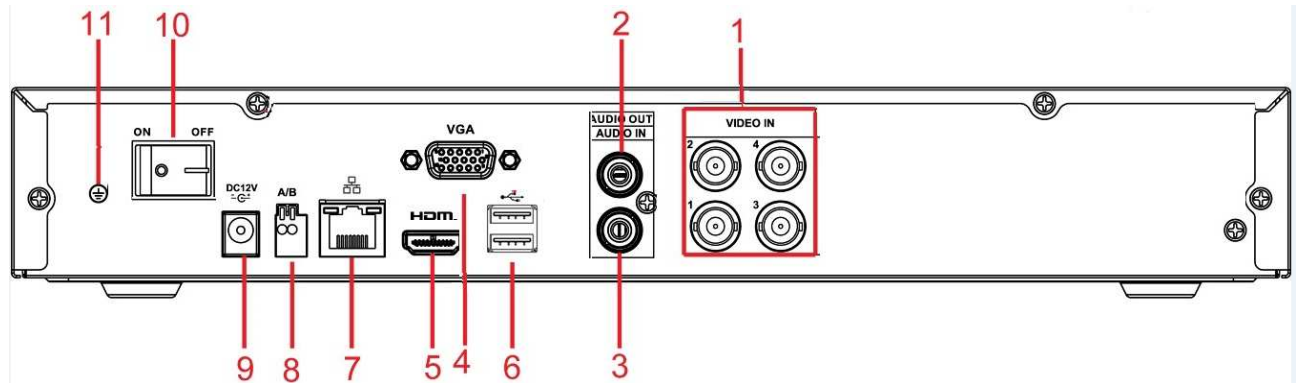


Figure 0-1

8-channel series

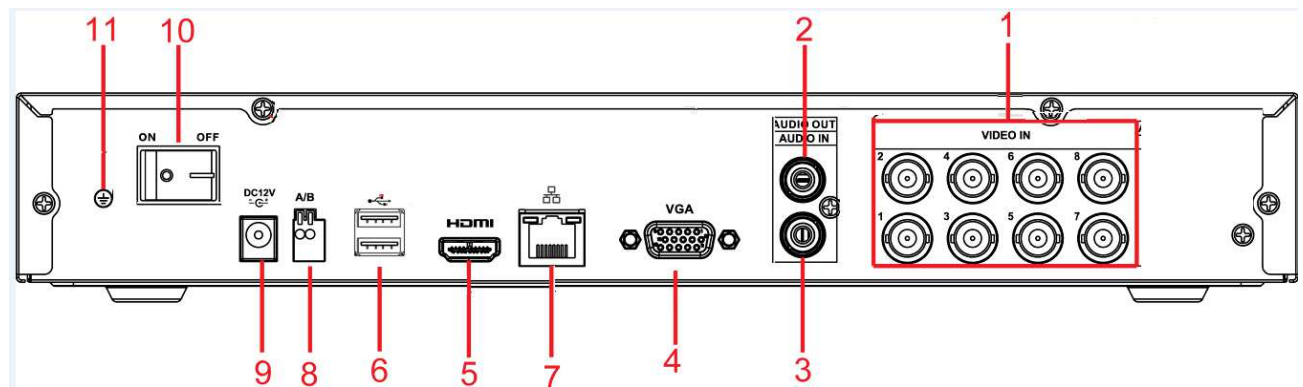
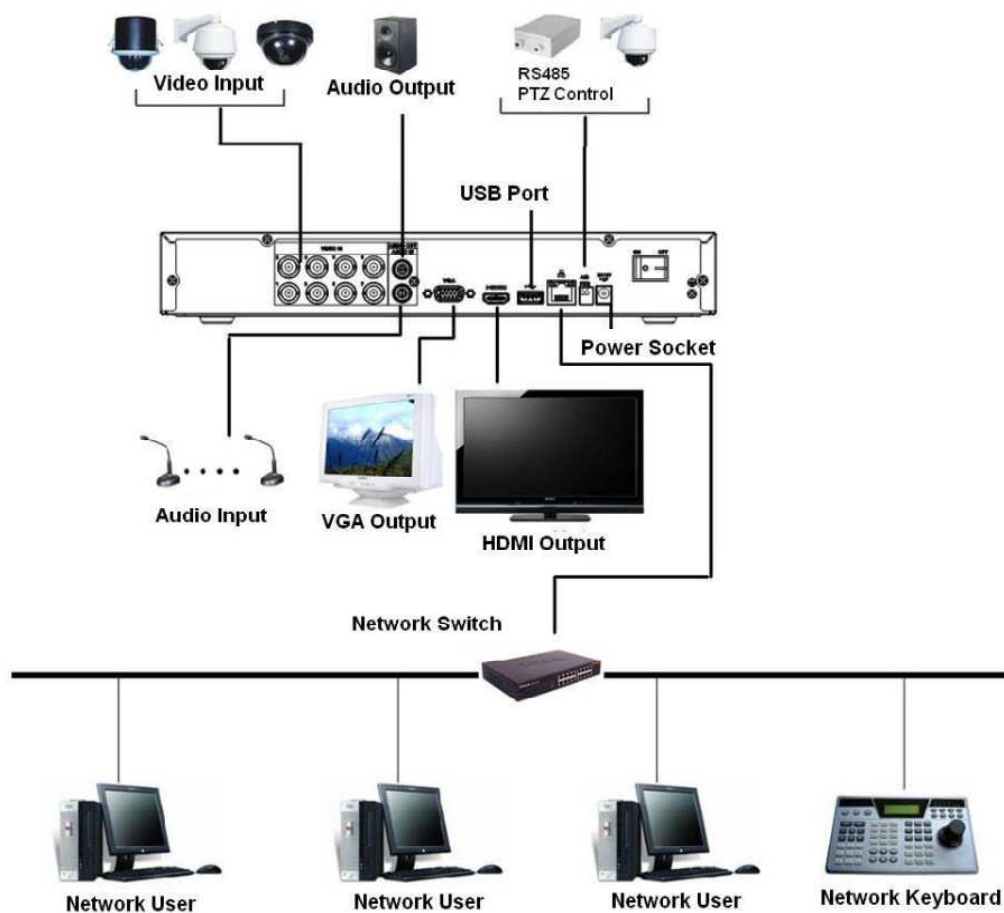


Figure 0-2

SN	Name	SN	Name	SN	Name
1	Video input	2	Audio output	3	Audio input
4	Video VGA output	5	HDMI port	6	USB port
7	Network port	8	RS-485 port	9	Power socket
10	On/Off button	11	GND		

5. System Topology

Please connect all your devices preferring to the follow diagram. (only for reference)



6. Startup and shutdown

Before power on, please make sure the power adapter input and output both suitable with your power system and DVR input.

1. Plug in the AC plug to your home plug seat firmly
2. Connect the 12VDC jack plug to DVR
3. Switch on the power switch

After 1 to 2 minutes, the DVR will show you the split screen and pop up a setup guide to help you making some essential configuration, such as time, encode, record schedule, etc., before working in normal .

It's strong recommend do like this when shutdown needed : Main Menu -> Shutdown, then switch off and plug out the AC adapter . Also you can press the power off button on front panel or remote control.

7. Startup Guide

After the system startup, a set of essential running configurations windows will popup one by one, so you can configure the DVR easily via this guide.

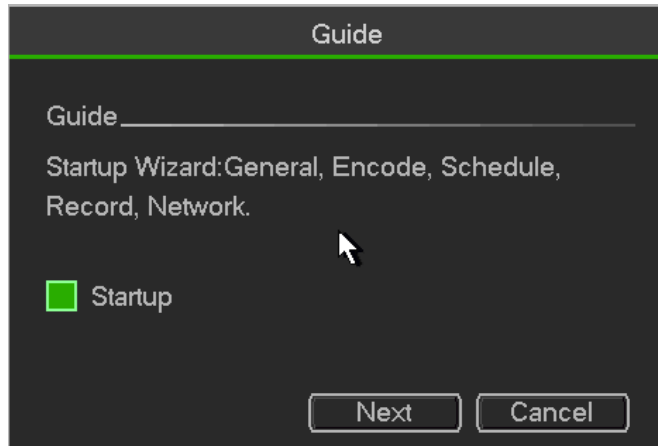


Figure 0-1

Note: if the Startup checkbox selected, this guide will show after next power on.

7.1 System Login

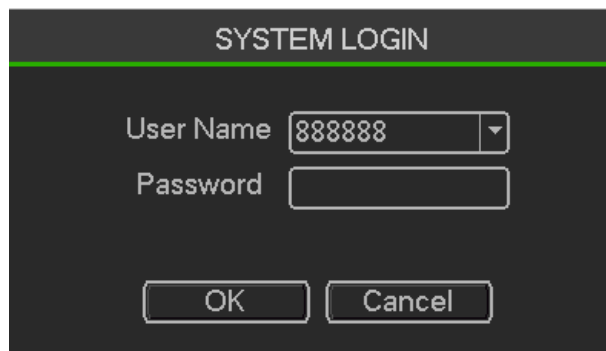


Figure 0-2

- **Username:** admin. **Password:** admin. (administrator, local and network)
- **Username:** 888888. **Password:** no password (administrator, local only)
- **Username:** 666666. **Password:** no password (Lower authority user who can only monitor, playback, backup and etc.)
- **Username:** default. **Password:** default (hidden user). Hidden user "default" is for system interior use only and can not be deleted. When there is no login user, hidden user "default" automatically login. You can set some rights such as monitor for this user so that you can view some channel view without login.

Note: for security reason, please modify password after your first login.

Within 30 minutes, three times login failure will result in system alarm and five times login failure will result in account lock! You have to cycle the power to unlock it.

7.2 System General Settings

Main Menu - System - General

System Time: 2014 - 06 - 25 02 : 54 : 22 [Save]

Basic Settings

Date Format: YYYY MM DD [v] [] DST [Set]
Date Separator: . [v] Time Format: 24-HOUR [v]

Device Settings

Language: ENGLISH [v] HDD Full: Overwrite [v]
Video Standard: PAL [v] Pack Duration: 60 [v] min
DVR No.: 8 [v] Realtime Play: 5 [v] min
Device ID: HCVR [v]

Other Settings

[x] Holiday [Set] Mouse Sensitivity: [Set]
[x] Guide Auto Logout: 10 [v] min

[Default] [OK] [Cancel]

There you can set the DVR local time, DST, language, PAL/NTSC, etc.

Note: if you use the NTP function to sync the internet time, do not forget change your time zone.(Main menu -> System ->Net Server ->NTP)

7.3 Video Encode

Main Menu - System - Encode

Channel	<input type="text" value="1"/>	
Cable	<input type="text" value="COAXIAL"/>	
Type	<input type="text" value="Regular"/>	<input type="text" value="Sub Stream1"/>
Compression	<input type="text" value="H.264"/>	<input type="text" value="H.264"/>
Resolution	<input type="text" value="720P"/>	<input type="text" value="CIF"/>
Frame Rate(FPS)	<input type="text" value="25"/>	<input type="text" value="25"/>
Bit Rate Type	<input type="text" value="CBR"/>	<input type="text" value="CBR"/>
I Frame Interval	<input type="text" value="1 S"/>	<input type="text" value="1 S"/>
Bit Rate(Kb/S)	<input type="text" value="2048"/>	<input type="text" value="640"/>
Reference Bit Rate	1536-4096Kb/S	192-1024Kb/S
Audio/Video	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Audio Format	<input type="text" value="G711a"/>	Audio Source <input type="text" value="NORMAL"/>
	<input type="text" value="OVERLAY"/>	
	<input type="text" value="SNAPSHOT"/>	

There are some parameters which will decide the video record quality, such as resolution, frame rate, bitrates. The bitrates will decide the HDD storage time directly, but it's not recommended that adjust it too low, otherwise, the video quality will be bad.

If Audio device connected, please select all the checkbox in Audio/Video.

7.4 Record Schedule

Main Menu - Record - Schedule

Channel PreRecord Sec.Redundancy ☐ Snapshot ☐ Holiday ☐

Period Type

	Regular	Motion	Alarm	MD&Alarm
Period 1 <input type="text" value="00 : 00 - 24 : 00"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Period 2 <input type="text" value="00 : 00 - 24 : 00"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Period 3 <input type="text" value="00 : 00 - 24 : 00"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Period 4 <input type="text" value="00 : 00 - 24 : 00"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Period 5 <input type="text" value="00 : 00 - 24 : 00"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Period 6 <input type="text" value="00 : 00 - 24 : 00"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☒ Regular ☐ Motion ☐ Alarm ☐ MD&Alarm

3 6 9 12 15 18 21 24

Default Copy OK Cancel

In the window it allows setting the record schedule and multi record modes.

By default , the record mode is regular which means 24 hours record when power on.

You can customize the time period and record mode.(Motion, Alarm)

7.5 Network Configuration

The screenshot shows a network configuration window titled "Main Menu - System - Network". It contains the following fields and options:

- IP Version: A dropdown menu set to "IPv4".
- IP Address: A text field containing "192 . 168 . 1 . 221".
- Subnet Mask: A text field containing "255 . 255 . 255 . 0".
- Gateway: A text field containing "192 . 168 . 1 . 1".
- TCP Port: A text field containing "37777".
- HTTP Port: A text field containing "81".
- UDP Port: A text field containing "37778".
- HTTPS Port: A text field containing "443".
- RTSP Port: A text field containing "554".
- MTU: A text field containing "1500".
- Primary DNS: A text field containing "8 . 8 . 8 . 8".
- Secondary DNS: A text field containing "8 . 8 . 4 . 4".
- Max Connection: A text field containing "128".
- DHCP: An unchecked checkbox.
- HS Download: An unchecked checkbox.

At the bottom of the window, there are three buttons: "Default", "Save", and "Cancel".

This series DVR support network access , you should configure the right parameters depending on your local LAN or router. The IP address can't be the same that will conflict with other network device. You can do ping on a computer before set a local IP address to the NVR. If no answer it means the IP address you ping is available .

For example, if the gate way of your LAN is 192.168.1.x , you should set the DVR IP address to a free one of 192.168.1.xxx , and make sure the subnet mask , DNS are all the same as your LAN computer .

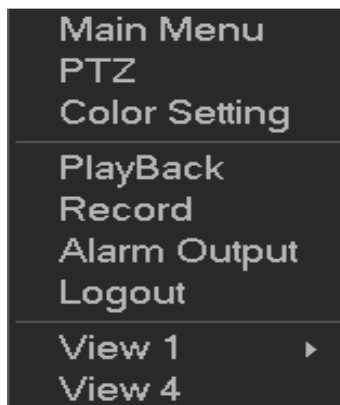
If you want a remote access from internet you should make sure all the port are available in your ISP network. You can try change the HTTP port if 80 is not reach, and so did the other ports.

--End Startup

8. System menu

8.1 Right-click menu

you can right click on the live view split screen, there is a shortcut menu show as blow:



You can enter the main menu , control the PTZ camera , do playback , change display split, etc.

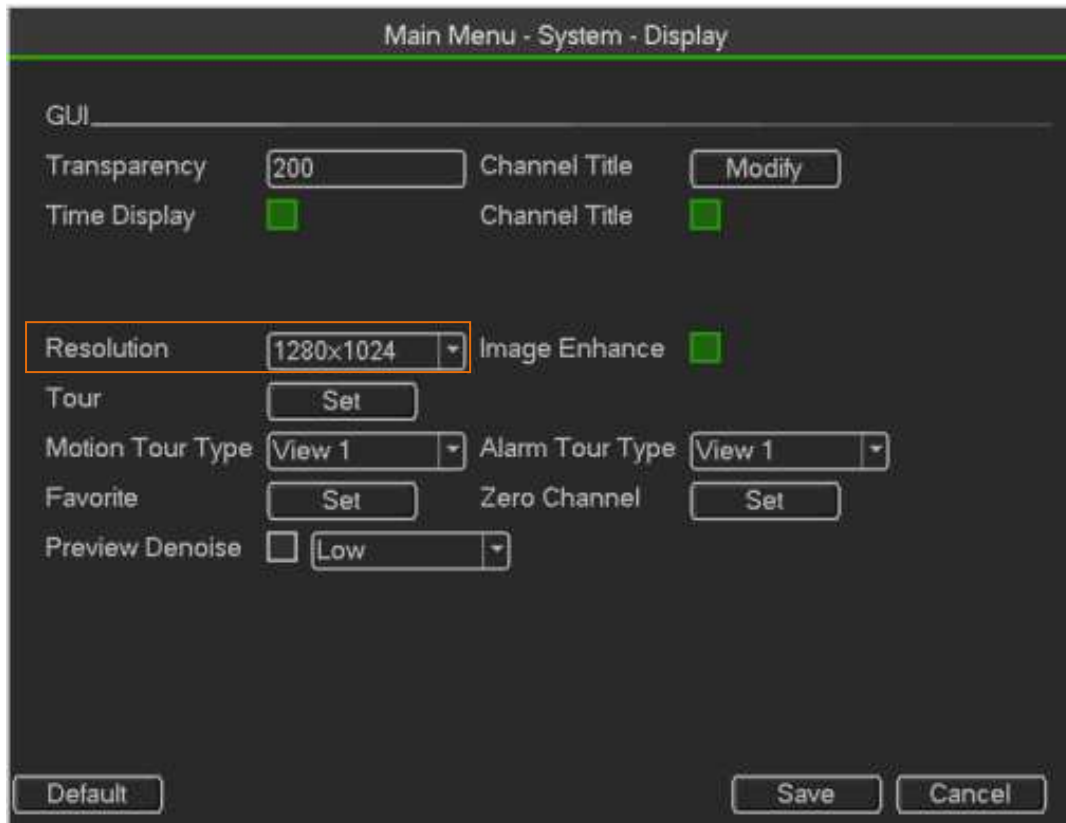
8.2 Live view

In live view mode, you can see the real time camera image in each of the grid , and there are some other message and icons will show, such as channel title, system time ,etc.

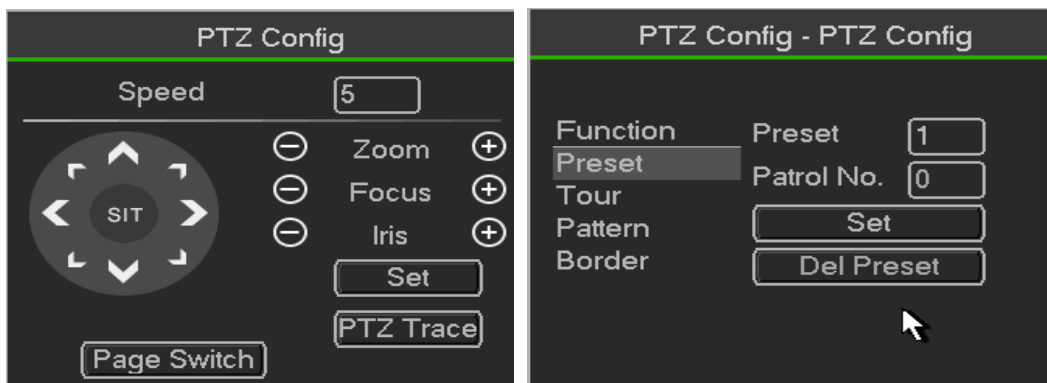


1		Recording status	2		Video loss
3		Motion detection	4		Camera lock
5		Fast playback	6		Fast backup

To reach the best display quality please go to the Main menu -> System -> Display and select the suitable display resolution for your monitor . If a HD monitor connected with HDMI cable , please select the 1920x1080.



If there connected a PTZ camera or electric auto VF lens camera, you can double click the window and select the PTZ to control the camera .



Note: if you PTZ camera can't move , please check the parameters both on PTZ camera and DVR menu, and make sure each channel set the right value .

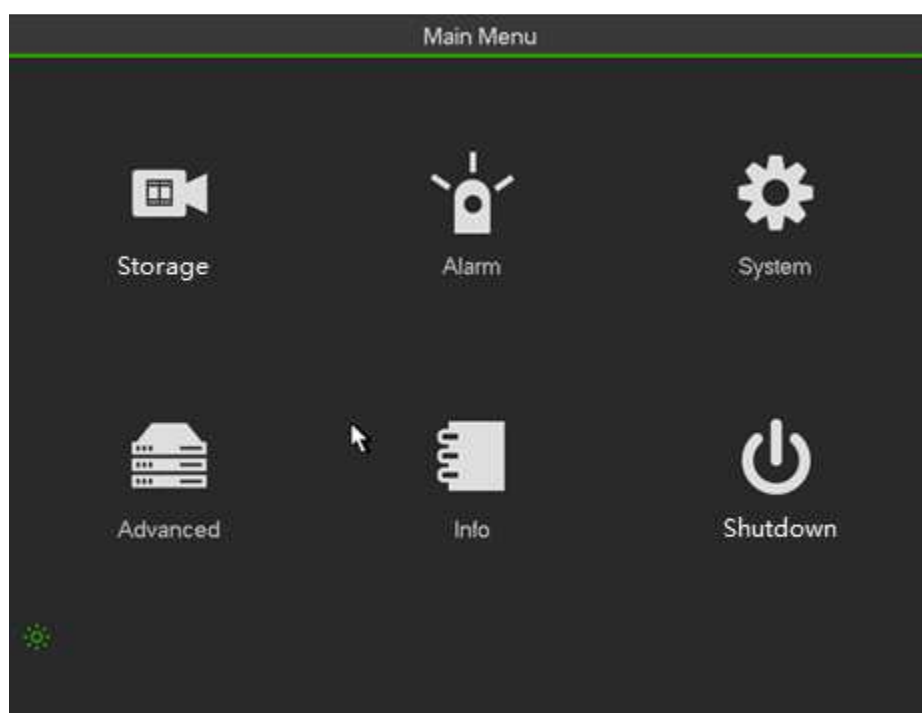
The address should be different each other if there connected more than one PTZ camera.

Main Menu - System - PTZ Config

Channel	1
Control Mode	HDCVI
Protocol	DH-SD1
Address	1
Baudrate	9600
Data Bits	8
Stop Bits	1
Parity	None

Default Copy Save Cancel

8.3 Main Menu



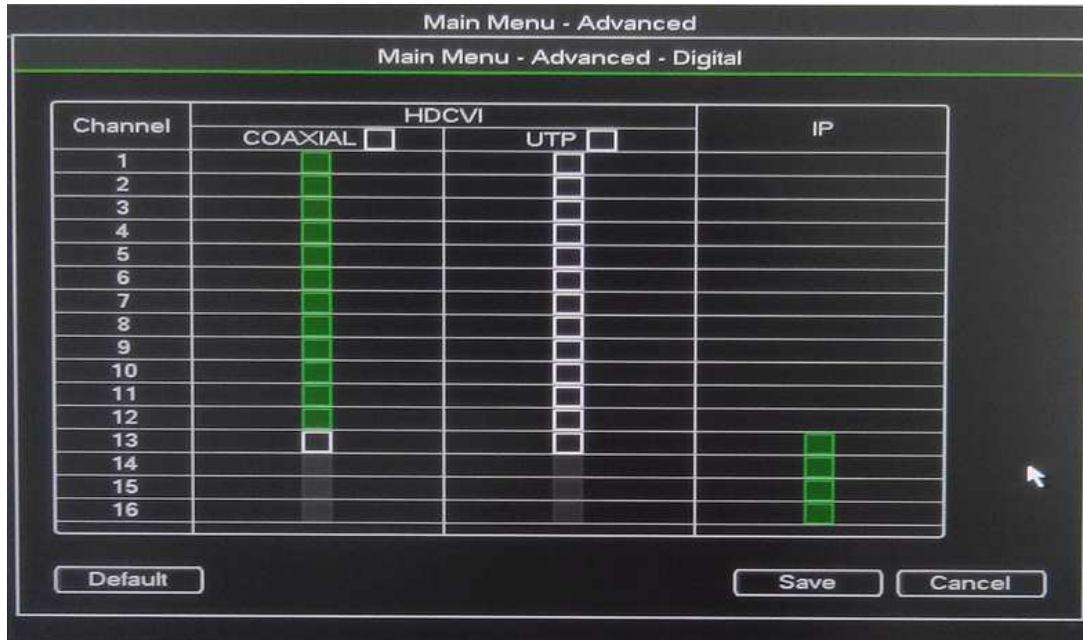
System Menu tree

Main	Sub menu	Description
Storage	Schedule	Set record type , record time periods and pre-record
	Playback	Playback the stored video and pictures, make video clip
	Record	Configure record mode (Schedule/)
	Backup	Backup video files to USB device
Alarm	Alarm	Local extended Alarm Input & Output (optional)
	Motion	Motion detection configure, trigger actions
	Abnormality	HDD error / IP conflict etc.
System	General	Date time / language / video standard / DVR name ,etc.
	Encode	Video resolution / frame rate/ bit rates / audio
	Network	IP address / ports / DNS
	Network server	DDNS / UPNP / P2P / NTP / FTP / Email / wifi
	Display	Set HDMI and VGA output resolution, channel title
	PTZ	PTZ control parameters of protocol ,baud rate, address, etc.
Advanced	HDD Manage	Hard disk management
	Account	Add or modify system account and privileges
	Online User	Show the user who login from network
	Auto Maintain	Add a restart time in schedule
	ATM/POS	ATM/POS OSD
	Default	Reload factory settings
	Config Backup	Export/Import system settings
	Digital	Set some channels to IP mode
Info	HDD Info	Hard disk status
	BPS	Record bitrates of each channel
	LOG	System log
	Version	System version
	Network	Network load
Shutdown	Shutdown Logout Reboot	--

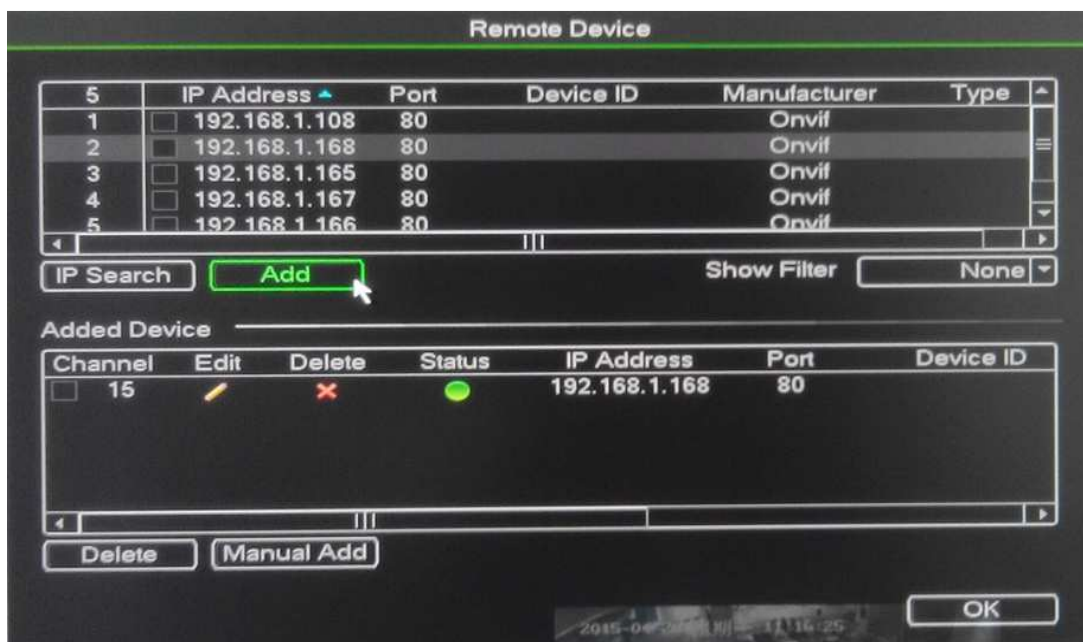
8.4 Change Digital IP Channel

Main Menu -> Advanced -> Digital

This series hybrid DVR can support HDCVI and IP camera . you can change some channels to IP mode to connect the IP cameras.

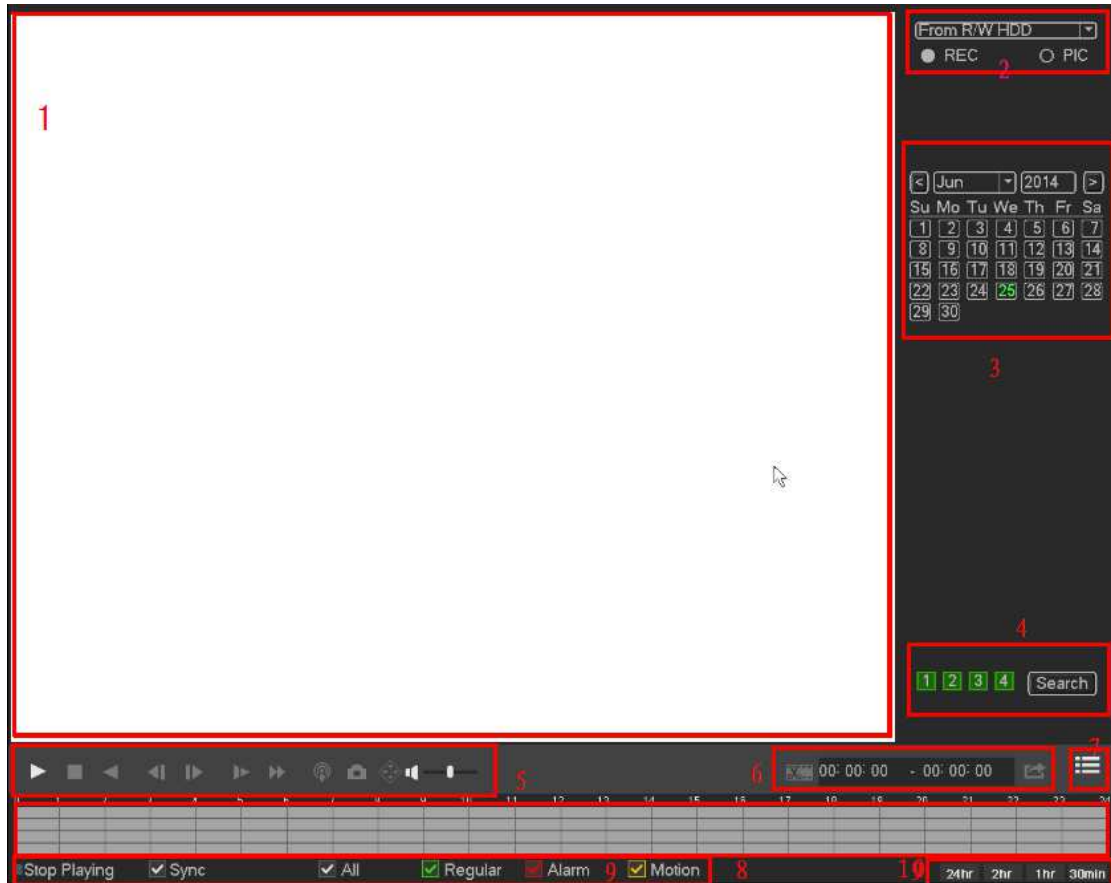


After clicking Save and restart the DVR, you can see a new option Remote Device in the Right-Click menu




8.5 Record Playback

Main Menu -> Storage -> Playback or right click to select Search



1	Video window	2	Search type	3	Calendar	4	Channel selection	5	Playback control
6	Video Clip	7	File list	8	Time bar	9	Record type	10	Time bar unit

When playback you can scroll mouse wheel on channel to make digital zoom and click the time line to jump to the time you want directly.

While playback you can make a video clip via click scissors then click each of the split window, and click  to fast backup.

Note: if you can not see any video file please make sure: 1) the HDD is connected , 2) HDD listed in HDD Manage , 3) HDD set to be Write/Read mode, 4) record mode is not stop.

8.6 Video backup

Main Menu -> Storage -> Backup

Backup

Selected Device: sda(USB DISK)

Backup Path: / Browse

Type: All Channel: 1 File Format: H264

Start Time: 2014 - 06 - 25 00 : 00 : 00 Remove Add

End Time: 2014 - 06 - 25 02 : 10 : 37 Onekey Backup

0	CH	Type	Start Time	End Time	Size(KB)

Page Up Page Down Fn Select/Cancel backup device or file.

Required/Remaining: 0.00 KB/7.36 GB Backup

DVR support CD-RW, DVD burner, USB device backup, network download.

After all files copied, there is a video player copied to the backup device together. So you needn't find the video player around ever.

8.7 System Account Manage

Main Menu -> Advanced -> Account

There are four default account after factory:

Username: admin. **Password:** admin. (administrator, local and network)

Username: 888888. **Password:** no password (administrator, local only)

Username: 666666. **Password:** no password (Lower authority user who can only monitor, playback, backup and etc.)

Username: default. **Password:** default (hidden user). Hidden user "default" is for system interior use only and can not be deleted. When there is no login user, hidden user "default" automatically login. You can set some rights such as monitor for this user so that you can view some channel view without login.

Main Menu - Advanced

Main Menu - Advanced - Account

	User	Group	Status	User MAC
1	888888	admin	Login Local	
2	666666	user	Normal	
3	admin	admin	Login Net	
4	default	user	Default User	

Add User Modify User

Add Group Modify Group Modify Password

Please change the default admin password in normal use.

Main Menu - Advanced

Add User

User Reuseable ☐

Password Confirm

Memo

User MAC

Group

38	<input type="checkbox"/> Authority
1	<input checked="" type="checkbox"/> Control Panel
2	<input checked="" type="checkbox"/> Shutdown the device
3	<input checked="" type="checkbox"/> Monitor
4	<input checked="" type="checkbox"/> Monitor_CH01
5	<input checked="" type="checkbox"/> Monitor_CH02
6	<input checked="" type="checkbox"/> Monitor_CH03
7	<input checked="" type="checkbox"/> Monitor_CH04
8	<input checked="" type="checkbox"/> Playback
9	<input checked="" type="checkbox"/> Replay_CH01

Page Up Page Down Enable/Disable Authority

Save Cancel

When adding a new user or user group please be careful to give the privileges.

If you forget the admin password you can contact the supplier to unlock.

9. Network Remote view

The series DVR supports remote view via Windows computer , Apple Mac APP, mobile smart APP (Android, IOS).

First of all, you should have a Internet access and configure the right IP address for the DVR.

The DVR default IP address is 192.168.1.108. It's a private local address. You can use it in local LAN via web browser or mobile APP directly.

Main Menu - System - Network

IP Version	IPv4	
IP Address	192 . 168 . 1 . 221	<input type="checkbox"/> DHCP
Subnet Mask	255 . 255 . 255 . 0	
Gateway	192 . 168 . 1 . 1	
TCP Port	37777	HTTP Port 81
UDP Port	37778	HTTPS Port 443
RTSP Port	554	MTU 1500
Primary DNS	8 . 8 . 8 . 8	
Secondary DNS	8 . 8 . 4 . 4	
Max Connection	128	<input type="checkbox"/> HS Download

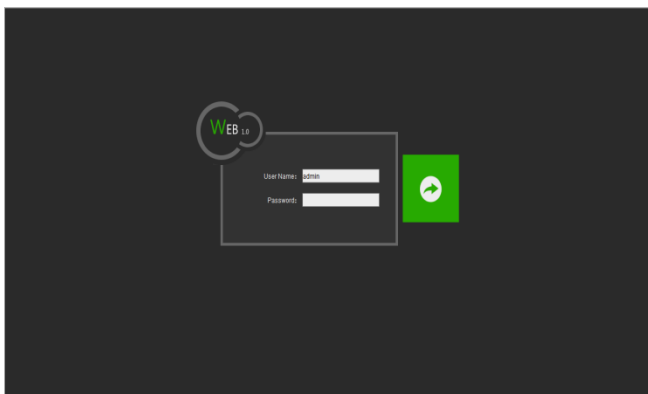
Default Save Cancel

You can change the IP address and ports by yourself if when is used by other device.

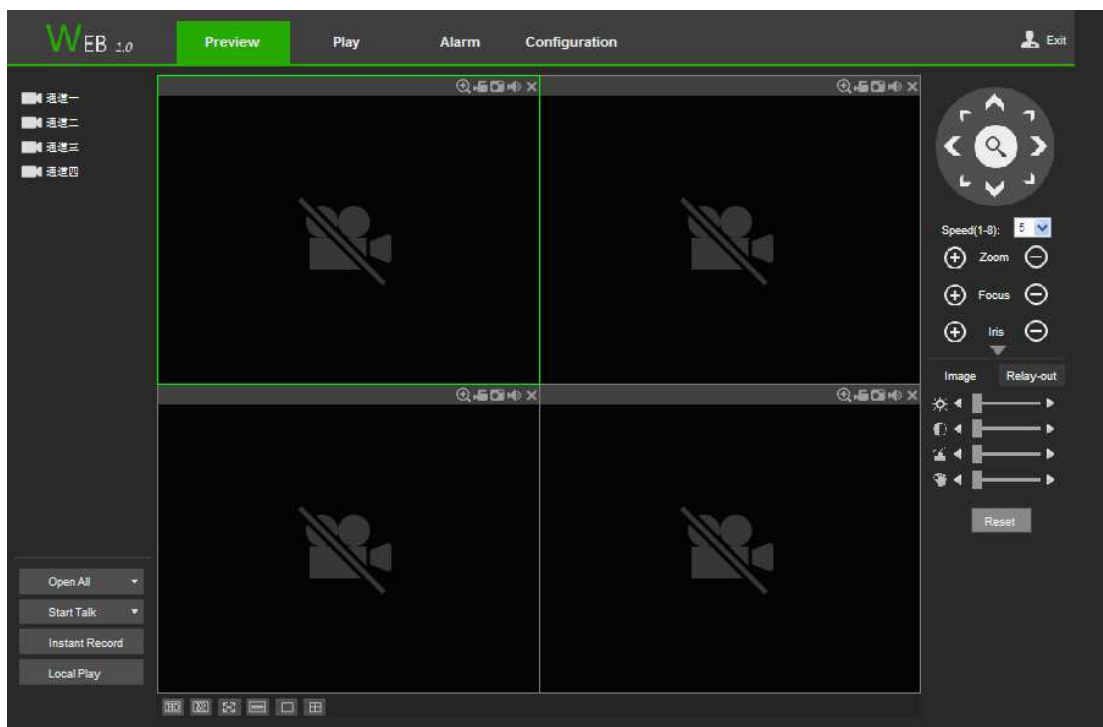
9.1 Web browser login

Input the Local IP address to the web browser and click install to Active-X, you can see the login windows:

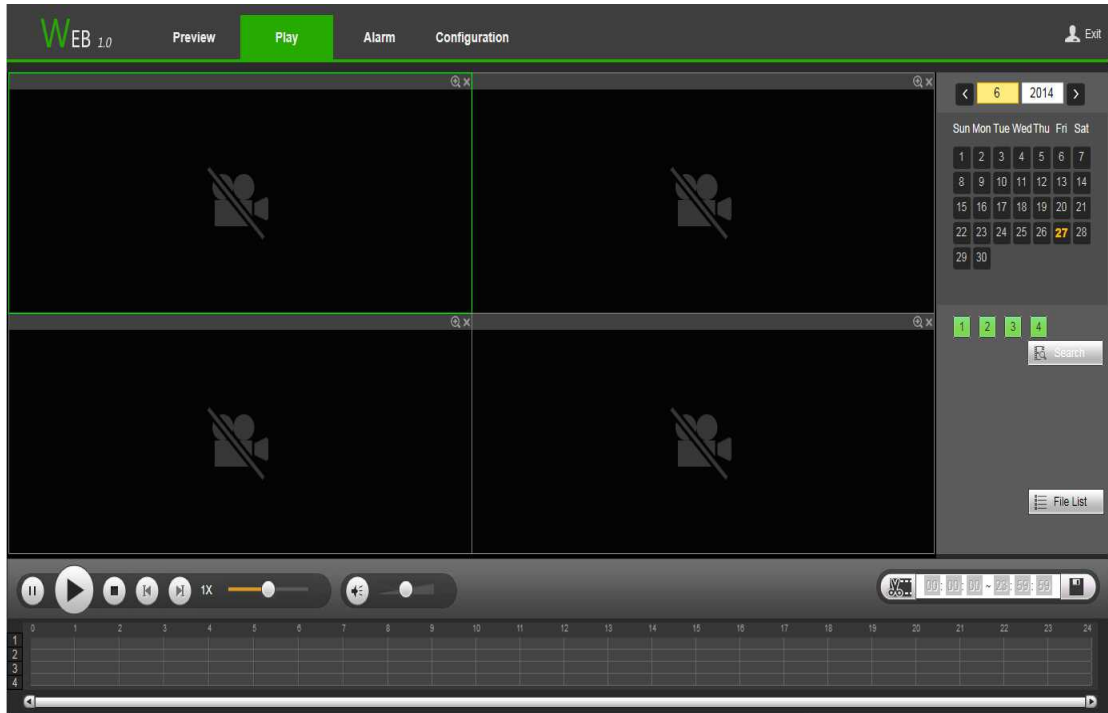
The default user name: admin, password: admin.



Click the channel name you can see the live video.



Also you can do playback and configure the DVR via web browser in remote.



9.2 Remote access DVR from Internet

When users go to outside, such as go on a trip to other city , go to office but want see the home camera, how to access the DVR and see the video ?

For this need, we have two way to realize .

9.2.1 Traditional DDNS

- 1) Forward the HTTP port , TCP and UDP port on your router, or add the DVR to DMZ.
- 2) Connect the Router's WAN IP address directly via Web browser or mobile phone.(if your ISP just release a dynamic public IP address, you have to register a DDNS on your router , then connect the DDNS instead) . The DVR also have a built-in free DDNS

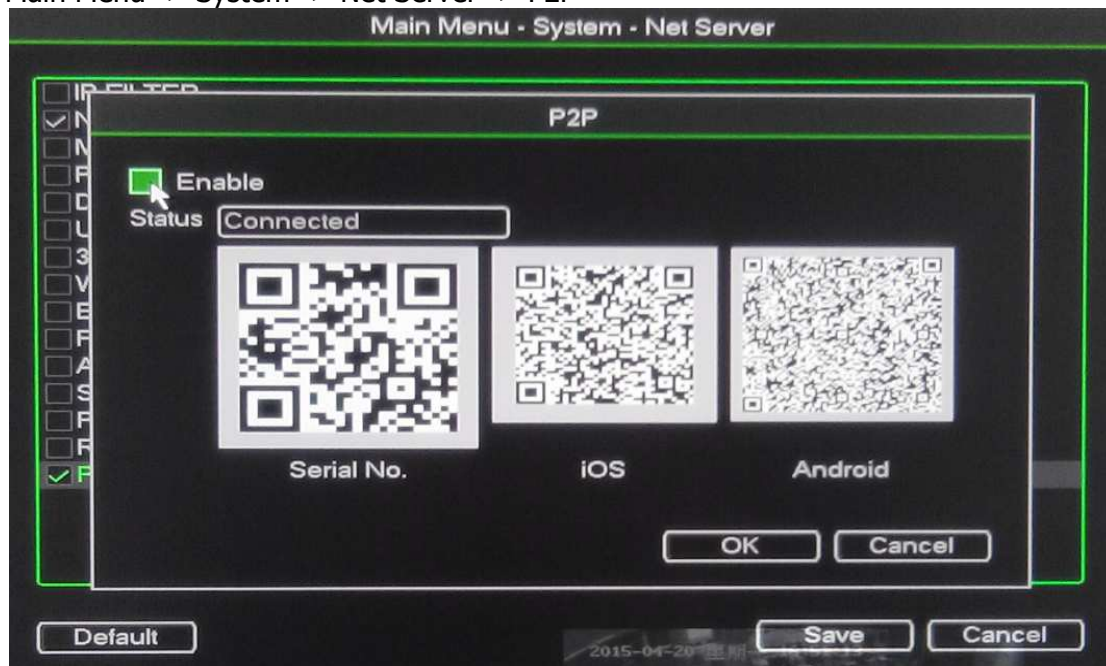
Note: if you ISP provide a private IP address (such as, 10.x.x.x, 172.16.x.x., 192.168.x.x) or a NAT public IP address, you can not use the traditional DDNS method. You can use the p2p firewall penetration technology

9.2.2 P2P ID access mode

In general, the DVR is working behind a NAT router or firewall, and we can not set the router or firewall either. But we need access the DVR. That is p2p firewall penetration technology.

Each of the DVR built in an unique ID , you can find the ID on DVR case , e.g.PASKxxxxxxxx. Also you can find it in DVR menu , it named Serial No.

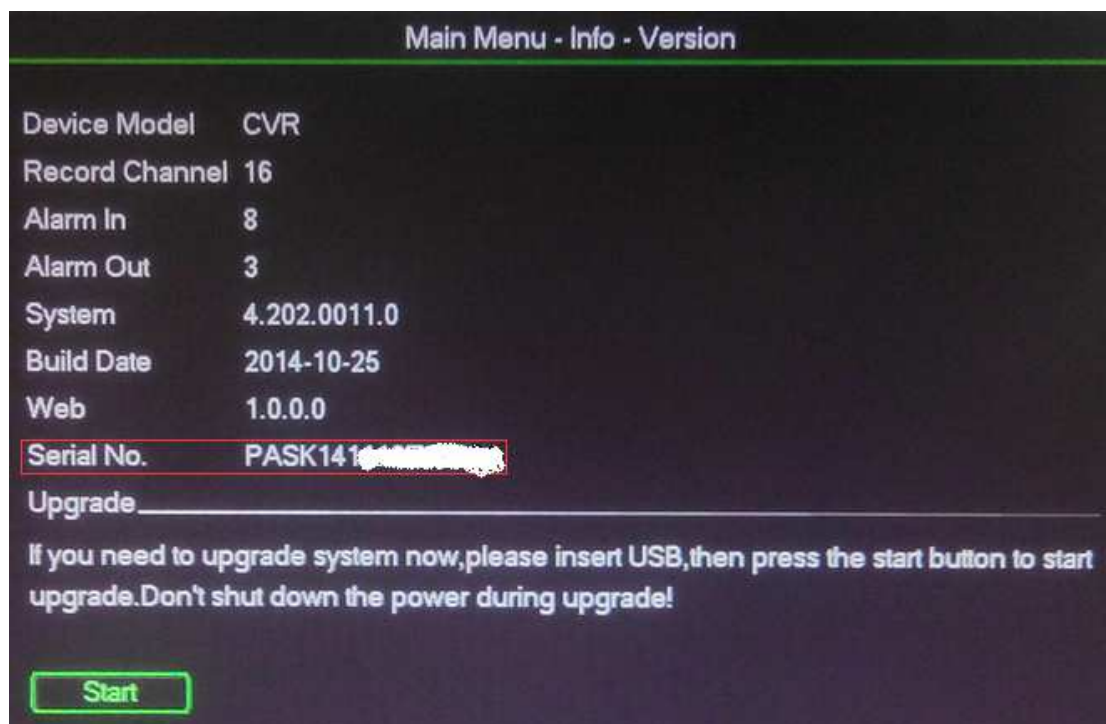
Main Menu -> System -> Net Server -> P2P



Mark and enable it , after restarting the p2p status will change to Connected.

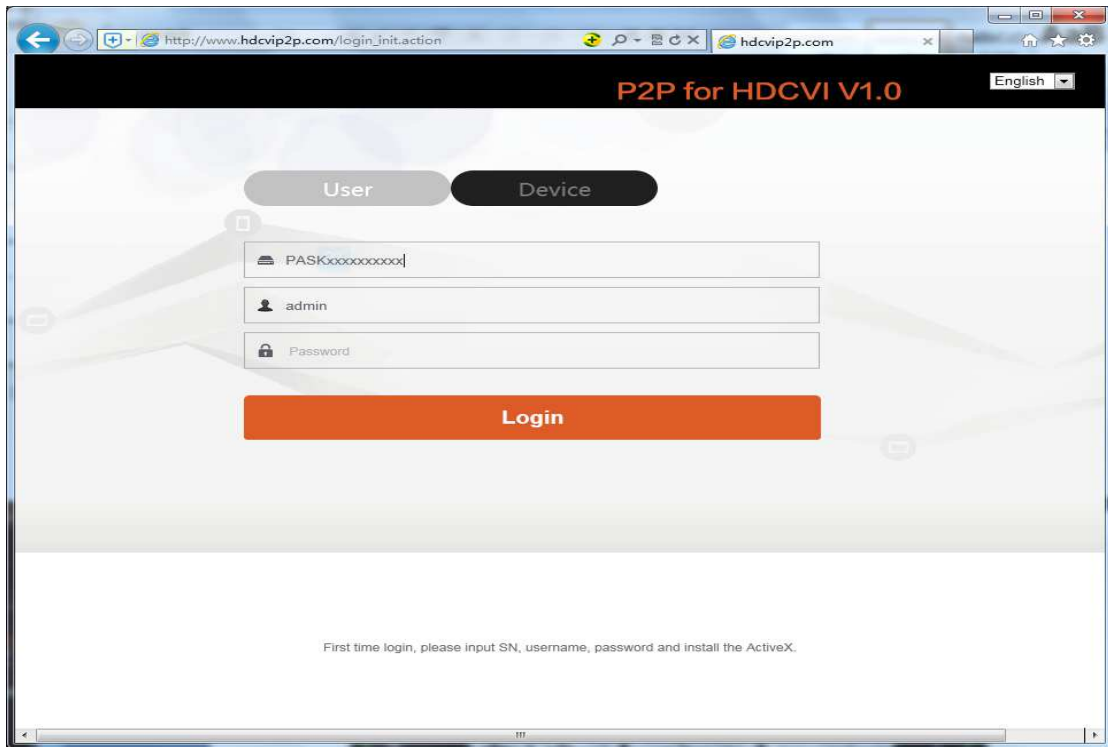
You can scan the Serial No. QR code image to find out the ID. Or you can go to the system info menu to check the Series No.

Main Menu -> Info -> Version

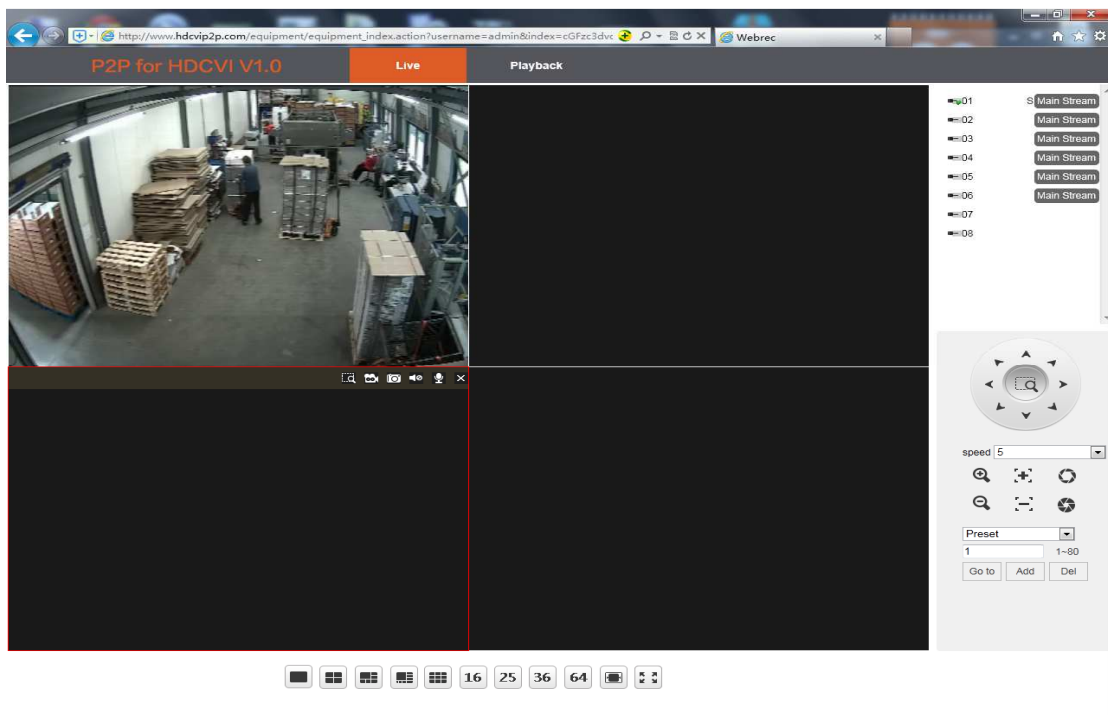


9.3 P2P web browser remote access

If you have got the DVR Serial No. you can open the p2p web service site: <http://www.hdcvip2p.com> , it will ask you to install a Active-X , please click download and install , then open the web site again , you can register a user or click Device login , please fill in the ID , user name and password to login the DVR.



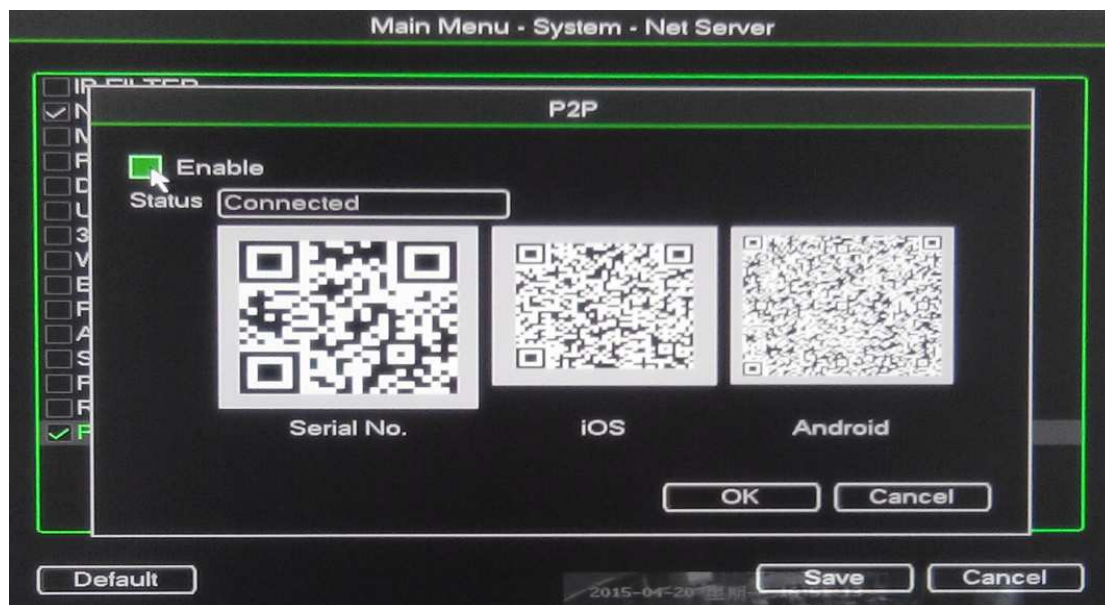
Click the camera list to open the camera live view,



9.4 Mobile phone remote access

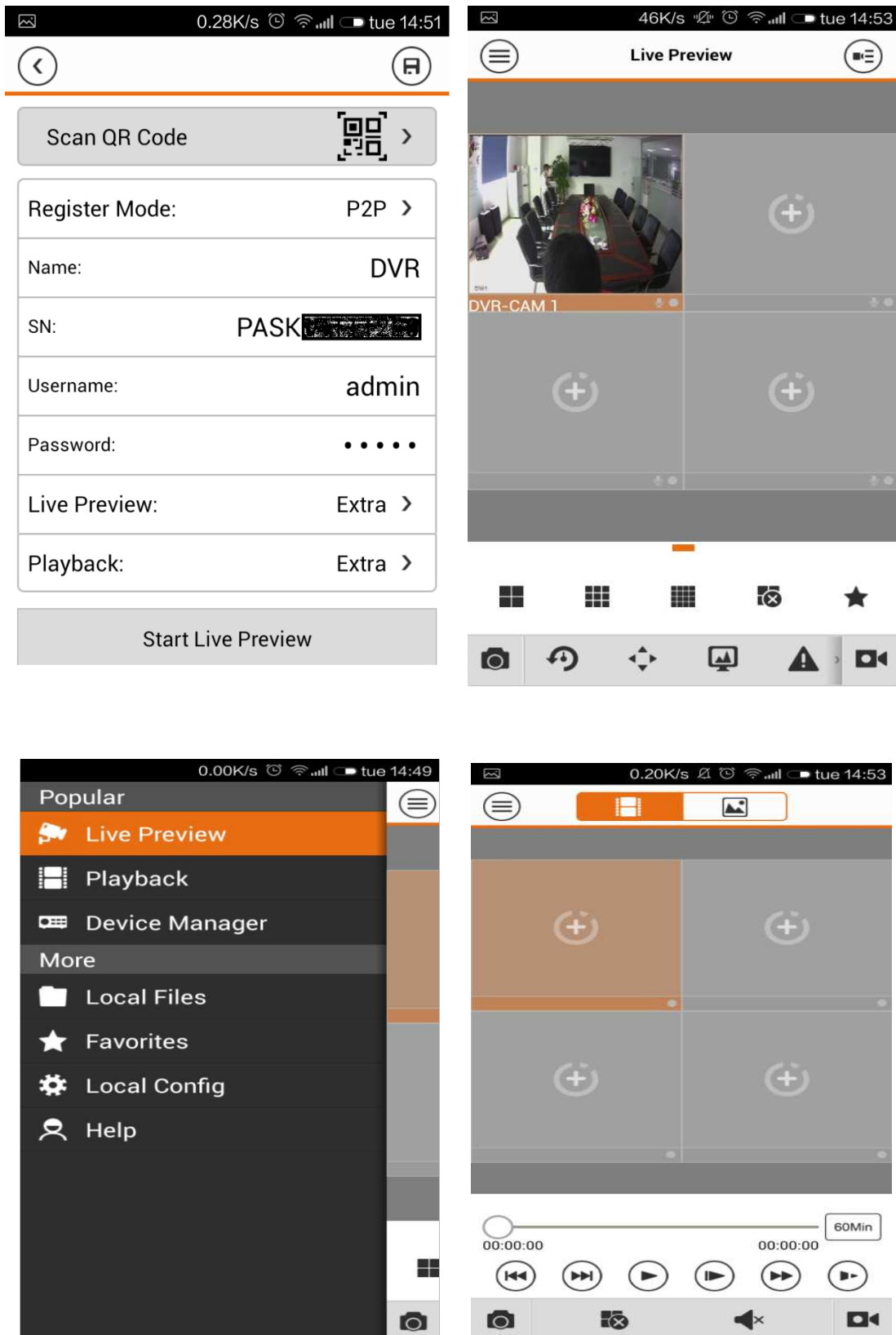
1) download the mobile APP (Android : MMS or QUESTEK MMS, IOS: iMMS), you can search and download it from Google Play and Apple APPStore. Or copy it from the CD. Third way, check the menu and scan the QR code below to download it directly.

Main Menu -> System -> Net Server -> P2P



2) open the APP MMS and add the DVR via scan QR code or manually input.


The mobile APP can support live view and playback.



The IOS App iMMS GUI functions are the same as Android, please refer to the guide above.

10. Video Management System

This series DVR can support centralized management via VMS application. This client can work on Windows and Mac OS. It support device search , live view, playback , system configure, video backup and convert AVI, etc.

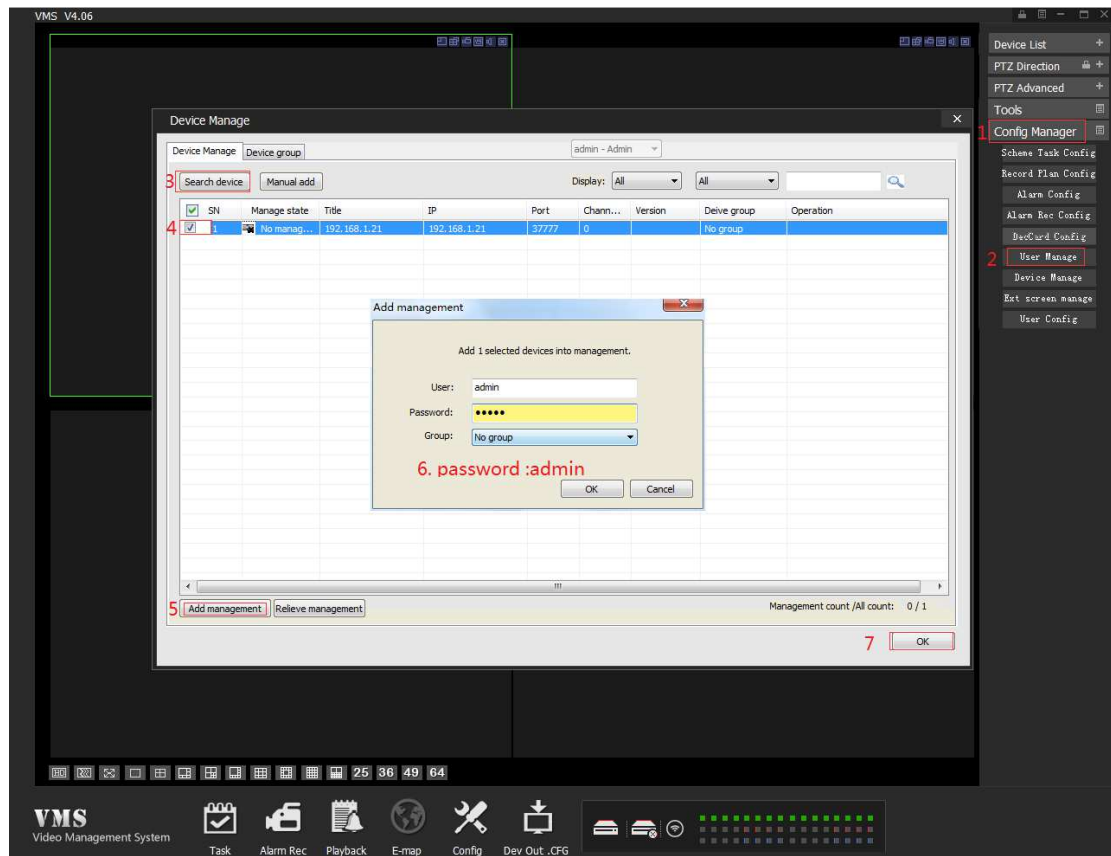
Find it in the CD and install step by step, then you can see a shortcut  on the desktop.

10.1 Login

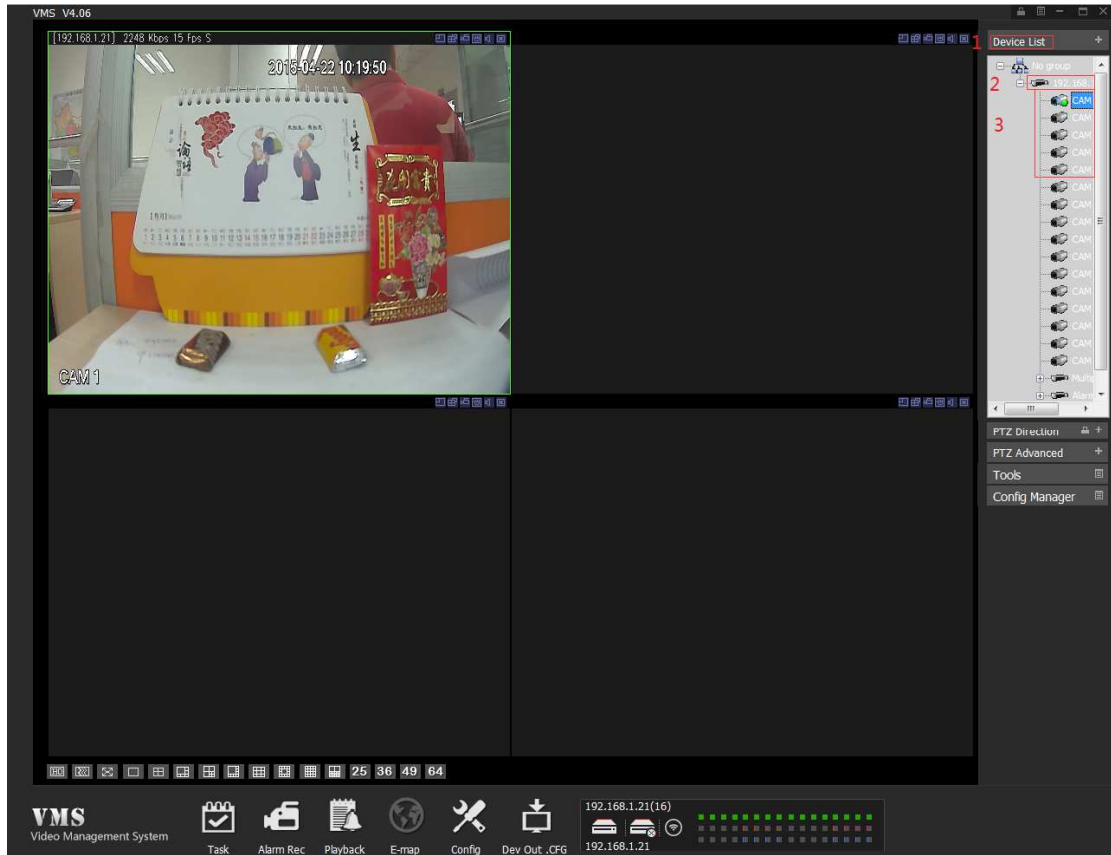
The default username: admin, password: admin



10.2 Add DVR



10.3 Live view



10.4 Apple Mac OS App

For Mac OS , please unzip the CD file "VMS_Normal_Setup_En_MAC.tar.bz2", then you can see an App **SmartPss**. The GUI is the same as Window version above.

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